Date: Tue, 13 Sep 94 07:59:34 PDT

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V94 #1016

To: Info-Hams

Info-Hams Digest Tue, 13 Sep 94 Volume 94 : Issue 1016

Today's Topics:

1.2GHz on an HT -- how far?

HF Beacon Frequencies?

Learning CW

New license elapsed time

Radio Shack mast

Rise Set Times 9/14-16

SAREX Elements 9/13 at 12:85 UTC

telnet to fcc?

Using 9913 outdoors (was Re: Coax Fittings)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

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Date: 12 Sep 1994 18:42:39 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!nic-nac.CSU.net!charnel.ecst.csuchico.edu!olivea!koriel!male.EBay.Sun.COM!

engnews1.Eng.Sun.COM!engnews2.@@ihnp4.ucsd.edu

Subject: 1.2GHz on an HT -- how far?

To: info-hams@ucsd.edu

In article <gbrush.13.000969B2@indy.net> gbrush@indy.net (Greg Brush) writes:

>A few of us with experience only in HF/VHF were discussing operation in the >1.2GHz band and specifically just how far (or not) one could transmit with the >typical HT operating on 1 or 2 watts with a rubber duck style antenna.

Well, keep in mind it's not a "rubber duck" shortened antenna, since

a full size 1/4 wave is only 2 inches long (in fact my ICOM 12-GAT came with one about 5 inches long, which I guess is a 5/8 wave.)

>It's obviously going to be very line-of-site sensitive, but in practical >terms, in a moderately flat and forested area, are we talking hundreds of >yards or a a couple miles?

Seems to work about as well as a 2 meter or 440 HT. I have no problem hitting high level repeaters 20 miles away. In forests through trees there might be some absorption problems, though I've never noticed any. It is prone to "dead spots" (multipath nulls, a/k/a picket fencing). Moving a few feet can make quite a difference. On very hot days, it can be hard to hit the repeaters -- convection currents in the air (the equivalent of the optical heat "wiggles" one sees on hot days.)

Rich

>

Rich McAllister (rfm@eng.sun.com)

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Date: Mon, 12 Sep 1994 03:18:49 GMT

From: news.Hawaii.Edu!kahuna!jeffrey@ames.arpa

Subject: HF Beacon Frequencies?

To: info-hams@ucsd.edu

In article <herbrCvzLCL.J2C@netcom.com> herbr@netcom.com (Herb Rosenberg) writes: >Does anyone know of the listing of various HF Beacons on the various Ham >bands? I know a few years ago, there was a network of beacons on 20 >,eters on 14.100 or 14.000 that was coordinated with 7 or 8 various >stations around the worls. Each station sent a short cw message at 100 >watts then 10 watts then 1 watt, and then the next station began its >transmission. It was very good for gauging propagation openings on 20 >meters. I know that there are some beacons on 10 meters, but I don't >know the frequeics, and I would be very interested in the other HF bands >as well.

There's a 10M beacon list available via email from ham-server@grafex.sbay.org - haven't used that in a long time - I think you should just write: INDEX and wait for the list of files with instructions. I believe the file you want is titled 10M.BEACONLST or close to that.

Jeff NH6IL

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Date: 12 Sep 1994 19:19:36 -0700

From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!barrnet.net!nntp.crl.com!crl.crl.com!

not-for-mail@network.ucsd.edu

Subject: Learning CW To: info-hams@ucsd.edu

I thought that I would add my 2 cents worth in. One year ago today I passed my no-code technician. I wanted just to use 2m and had no desire to learn code. While I was waiting my 12 weeks for my license to arrive I got a chance to see someone who knew how to send code in action. This guy was sending about 18 wpm making contacts (Seemed like 50 wpm to me at the time!). After some casual observing I realized that this guy was blind. I though how neat, so I started learning my code, well within 4 months I had managed to upgrade to 13 wpm. I am now and Advanced and love it.

Anyway some were wondering about using the computer to learn code. This is in my opinion the worst way possible! Don't get me wrong I love computers, I work with them 80 hours a week (programming, configuring etc.) and I thought that if I could mix my well rounded computer knowledge with code I could get it done faster. BUNK! Get the tapes and learn it that way! Or better yet I had more incentive at this time to learn code, I bought the most expensive type of code practice oscillator you can get - An HF rig!!! That will sure put the bug in you. (No pun intended!) . Just though I would pass my two cents along, Do it the way the OLD-TIMERS did it. Listen to it on the air, it is a whole heck of a lot different that what the computer spits out at you!

thanks for listening to my babbling...

73's from a soon to be Extra

pbp (KR4UJ)

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Date: 12 Sep 1994 18:30:54 GMT

From: ncar!newsxfer.itd.umich.edu!sol.ctr.columbia.edu!news.oberlin.edu!

ocvaxa.cc.oberlin.edu!PRUTH@ames.arpa Subject: New license elapsed time

To: info-hams@ucsd.edu

Took Tech test Sunday, July 17--arrived today, Sept. 12--eight weeks. I had even written on my personal calendar for Sept. 12: "Tech license due today"! And, it arrived one day after my birthday.
--Bill Ruth, Oberlin, Ohio KB8USZ

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Date: Mon, 12 Sep 94 18:37:48 -0500

From: news.delphi.com!usenet@uunet.uu.net

Subject: Radio Shack mast To: info-hams@ucsd.edu

From: Jim Clark KB0FIR <JIM3804@delphi.com>

I have used for three years, until I moved a Mosely TA-32JR on a 36 ft. push-up mast. Also used Alliance U-110 TV rotor. Bracketed the mast to the side of the house with a Radio Shack mounting bracket, and guyed the upper two sections including the top. Worked 245 countries barefoot! If you mount

the mast to the side of the house, and get up on the roof and push the antenna up, you Only took it down because I moved. Worked great! Would not recommend an antenna larger that a 2-el t

ribander. Quads are hard, cause you can't guy the mast at the top because of the quad. Email me if you would like more info. Make sure to ground the mast. Worked for me for 3 years in FL! 73, Jim

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Date: 13 Sep 94 12:32:01 GMT From: news-mail-gateway@ucsd.edu Subject: Rise Set Times 9/14-16

To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-64.010 STS-64 Eastern R/S Times 09/14

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass Set= time and azimuth when the Shuttle descends below the horizon

Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

Atlanta GA

Satellite STS-64 Element Set 14

Date Rise Az Maximum Az El Set Az Orb Rise MET

```
14Sep94 05:57:10 321
                      06:01:03 304 83
                                       06:05:15 142
                                                     70 04:07:34:15
14Sep94 20:28:31 189
                      20:32:06 127 17
                                       20:35:59
                                                 57
                                                     80 04:22:05:36
14Sep94 22:01:37 258
                      22:04:54 315 12
                                       22:08:30
                                                 17
                                                     81 04:23:38:42
15Sep94 04:20:01 351
                      04:23:00 37 7
                                       04:26:00
                                                 86
                                                     85 05:05:57:06
15Sep94 05:52:14 313
                      05:56:07 234 37
                                       06:00:00 155
                                                     86 05:07:29:19
15Sep94 20:23:10 202
                      20:27:03 126 32
                                       20:30:56
                                                 49
                                                     96 05:22:00:15
15Sep94 21:56:52 270
                      22:00:10 323 7
                                                 10
                                                     97 05:23:33:57
                                       22:03:09
                                       04:21:33 101 101 06:05:51:45
16Sep94 04:14:40 344
                      04:17:58 39 11
16Sep94 05:47:11 304
                      05:50:46 242 19
                                       05:54:40 168 102 06:07:24:16
16Sep94 20:17:49 215
                      20:21:43 149 73
                                       20:25:54 41 112 06:21:54:54
```

## Miami FL

# Satellite STS-64 Element Set 14

```
Date
         Rise
                      Maximum Az
                                   El
                                                    Orb Rise MET
                 Αz
                                         Set
                                                Αz
14Sep94 05:59:10 330
                      06:03:21 65 50
                                       06:07:14 138
                                                     70 04:07:36:15
14Sep94 20:27:13 218
                      20:31:06 318 70
                                       20:34:59 33
                                                     80 04:22:04:18
15Sep94 05:54:13 321
                      05:58:24 213 58
                                       06:02:18 151
                                                     86 05:07:31:18
15Sep94 20:21:58 230
                      20:25:51 301 28
                                       20:30:03
                                                 24
                                                     96 05:21:59:03
16Sep94 04:17:16
                   2
                      04:20:15 48
                                   5
                                       04:22:57
                                                90 101 06:05:54:21
                                       05:56:57 165 102 06:07:26:15
16Sep94 05:49:10 311
                      05:53:04 238 25
16Sep94 18:45:01 170
                      18:48:18 116 8
                                       18:51:18
                                                 68 111 06:20:22:06
                                                 14 112 06:21:54:18
16Sep94 20:17:13 245
                      20:20:49 311 15
                                       20:24:24
```

## New York NY

```
Rise
  Date
                Αz
                     Maximum Az
                                 El
                                       Set
                                              Az Orb Rise MET
                     02:55:03 26 5
14Sep94 02:52:21 344
                                     02:57:44
                                               67
                                                   68 04:04:29:26
14Sep94 04:24:16 321
                     04:28:27 46 43
                                     04:32:20 125
                                                   69 04:06:01:21
14Sep94 05:57:58 284
                                     06:03:57 190
                     06:00:58 237
                                  7
                                                   70 04:07:35:03
14Sep94 20:31:00 205
                     20:34:53 130 30
                                     20:38:47
                                               54
                                                   80 04:22:08:05
14Sep94 22:04:25 266
                     22:08:00 330 13
                                     22:11:35
                                               28
                                                   81 04:23:41:30
15Sep94 02:47:01 338
                     02:50:19
                              30 7
                                     02:53:18
                                               77
                                                   84 05:04:24:06
15Sep94 04:19:32 316
                     04:23:25 356 84
                                     04:27:36 136
                                                   85 05:05:56:37
15Sep94 20:25:46 217
                     20:29:40 153 58
                                     20:33:51 48
                                                   96 05:22:02:51
15Sep94 21:59:29 274
                     22:02:46 326
                                 9
                                     22:06:21
                                               25
                                                   97 05:23:36:34
16Sep94 02:41:47 335
                     02:45:23 35 10
                                     02:48:40 88 100 06:04:18:52
16Sep94 04:14:18 310
                     04:18:11 241 45
                                     04:22:23 147 101 06:05:51:23
16Sep94 20:20:26 228
                     20:24:38 335 66
                                     20:28:31 42 112 06:21:57:31
16Sep94 21:54:45 285
                     21:57:44 331 6
```

# Satellite STS-64 Element Set 14

```
Date
         Rise
                Αz
                     Maximum Az El
                                       Set
                                              Az Orb Rise MET
14Sep94 04:24:28 330 04:28:21 43 21 04:32:14 112 69 04:06:01:33
14Sep94 05:57:34 295
                     06:00:52 239 12
                                     06:04:27 176
                                                  70 04:07:34:39
14Sep94 20:30:18 201
                     20:34:11 126 25
                                     20:38:05 54
                                                  80 04:22:07:23
14Sep94 22:03:25 262 22:07:00 321 12 22:10:35 24
                                                  81 04:23:40:30
15Sep94 04:19:20 324
                    04:23:31 53 35
                                     04:27:24 124
                                                  85 05:05:56:25
15Sep94 05:52:44 288
                     05:55:43 242 7
                                     05:58:43 192
                                                  86 05:07:29:49
15Sep94 20:25:10 213
                     20:29:03 129 50
                                                  96 05:22:02:15
                                     20:32:56 48
15Sep94 21:58:52 274 22:02:10 328 8
                                     22:05:27 20
                                                  97 05:23:35:57
16Sep94 02:42:10 346 02:44:52 27 5
                                     02:47:51 74 100 06:04:19:15
16Sep94 04:14:05 319
                     04:18:16 48 72
                                     04:22:10 135 101 06:05:51:10
16Sep94 20:19:44 224
                     20:23:55 356 70
                                     20:27:48 42 112 06:21:56:49
16Sep94 21:54:20 288 21:57:01 330 6 22:00:01 16 113 06:23:31:25
```

Compiled by Will Marchant, KC6ROL Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group Send comments to kc6rol@amsat.org /EX

SB SAREX @ AMSAT \$STS-64.011 STS-64 Central R/S Times 09/14

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass Set= time and azimuth when the Shuttle descends below the horizon Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

## Chicago IL

```
Az Orb Rise MET
 Date
         Rise
                Αz
                     Maximum Az El
                                       Set
14Sep94 04:22:28 330
                    04:26:04 31 13
                                     04:29:39 94 69 04:05:59:33
14Sep94 05:54:59 307
                    05:59:10 224 34
                                     06:03:03 152
                                                  70 04:07:32:04
14Sep94 22:02:01 227
                    22:05:54 291 76
                                     22:10:06
                                              45
                                                  81 04:23:39:06
14Sep94 23:36:01 283
                    23:39:19 336 8
                                     23:42:18
                                              24
                                                  82 05:01:13:06
15Sep94 04:17:26 327 04:21:20 38 18 04:24:55 104
                                                  85 05:05:54:31
```

```
15Sep94 05:50:15 301
                     05:54:08 229 19
                                      05:57:43 164
                                                    86 05:07:27:20
15Sep94 20:25:22 173
                     20:28:22 124 8
                                                72
                                      20:31:39
                                                    96 05:22:02:27
15Sep94 21:56:59 238
                     22:00:52 317 40
                                      22:05:03
                                                40
                                                    97 05:23:34:04
15Sep94 23:31:35 294
                     23:34:17 337 6
                                      23:37:16
                                                23
                                                    98 06:01:08:40
16Sep94 04:12:06 322
                     04:16:17 44 28
                                      04:20:11 115 101 06:05:49:11
16Sep94 05:45:13 294
                     05:48:48 235 12
                                      05:52:05 178 102 06:07:22:18
16Sep94 20:19:26 188
                     20:23:02 126 13
                                      20:26:37 64 112 06:21:56:31
16Sep94 21:51:57 249
                     21:55:50 329 24
                                      21:59:43 36 113 06:23:29:02
```

#### Denver CO

Satellite STS-64 Element Set 14

```
Date
          Rise
                 Αz
                      Maximum Az El
                                         Set
                                                   Orb Rise MET
                                                Az
14Sep94 05:53:23 333
                     05:56:58 36 14
                                      06:00:34 100
                                                    70 04:07:30:28
                     07:29:47 236 22
14Sep94 07:25:54 304
                                      07:33:40 162
                                                    71 04:09:02:59
14Sep94 22:00:07 181
                     22:03:25 124 12
                                      22:07:00
                                                64
                                                    81 04:23:37:12
14Sep94 23:32:20 247
                     23:35:55 314 23
                                      23:39:48 32
                                                    82 05:01:09:25
15Sep94 05:48:15 328
                     05:52:08 41 22
                                      05:56:01 112
                                                    86 05:07:25:20
15Sep94 07:21:21 295
                     07:24:39 239 13
                                      07:28:14 175
                                                    87 05:08:58:26
15Sep94 21:54:23 196
                     21:58:16 124 20
                                      22:01:52 58
                                                    97 05:23:31:28
15Sep94 23:27:30 258
                     23:31:05 325 15
                                      23:34:40 28
                                                    98 06:01:04:35
16Sep94 05:43:07 324
                     05:47:00 42 36
                                      05:50:53 123 102 06:07:20:12
16Sep94 07:16:31 286
                     07:19:30 238 7
                                      07:22:30 190 103 06:08:53:36
16Sep94 21:48:57 208
                     21:52:50 133 36
                                      21:56:43 51 113 06:23:26:02
16Sep94 23:22:21 268 23:25:57 328 10
                                      23:29:21 24 114 07:00:59:26
```

### Houston TX

Satellite STS-64 Element Set 14

```
Date
         Rise
                Αz
                     Maximum Az El
                                        Set
                                                Az Orb Rise MET
14Sep94 05:57:04 352
                                  9
                     06:00:21 47
                                      06:03:39 100
                                                    70 04:07:34:09
14Sep94 07:29:17 306
                     07:33:10 236 18
                                      07:36:45 171
                                                    71 04:09:06:22
14Sep94 21:58:49 234
                     22:02:43 317 28
                                      22:06:36 26
                                                    81 04:23:35:54
15Sep94 05:51:43 343
                     05:55:19 45 15
                                      05:58:54 112
                                                    86 05:07:28:48
15Sep94 07:24:50 294
                     07:28:07 238
                                  9
                                      07:31:25 185
                                                    87 05:09:01:55
15Sep94 20:21:34 175
                     20:24:51 121 10
                                      20:28:09 66
                                                     96 05:21:58:39
                                                    97 05:23:30:52
15Sep94 21:53:47 246
                     21:57:40 317 15
                                      22:01:15
                                                18
16Sep94 05:46:23 334
                     05:50:16 49 28
                                      05:54:09 126 102 06:07:23:28
16Sep94 20:15:56 189
                     20:19:31 124 18
                                       20:23:24 54 112 06:21:53:01
16Sep94 21:49:02 260
                     21:52:19 314 9
                                       21:55:37
                                                 9 113 06:23:26:07
```

Huntsville AL

Satellite STS-64

## Element Set 14

```
Date
         Rise
               Αz
                    Maximum Az El
                                      Set
                                            Az Orb Rise MET
14Sep94 05:56:34 322 06:00:45 84 69 06:04:39 138
                                                 70 04:07:33:39
14Sep94 20:28:48 179 20:32:06 124 11
                                    20:35:41 64
                                                 80 04:22:05:53
14Sep94 22:01:01 247
                    22:04:54 319 18
                                    22:08:30 23
                                                 81 04:23:38:06
15Sep94 04:19:43 352
                    04:22:25 34 6
                                    04:25:24 83
                                                 85 05:05:56:48
15Sep94 05:51:38 315
                    05:55:31 246 47
                                    05:59:42 150
                                                 86 05:07:28:43
15Sep94 20:23:10 194
                    20:27:03 122 20
                                    20:30:38 56
                                                 96 05:22:00:15
15Sep94 21:56:16 260 21:59:52 320 11
                                    22:03:27 18
                                                 97 05:23:33:21
16Sep94 04:14:05 344
                    04:17:40 43 10
                                    04:20:57 97 101 06:05:51:10
16Sep94 05:46:35 307
                    05:50:28 234 23
                                    05:54:22 163 102 06:07:23:40
16Sep94 20:17:49 206
                    20:21:43 125 39
                                    20:25:36 47 112 06:21:54:54
16Sep94 21:51:50 275 21:54:49 324 7
```

Compiled by Will Marchant, KC6ROL Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group Send comments to kc6rol@amsat.org /EX

SB SAREX @ AMSAT \$STS-64.012 STS-64 Western R/S Times 09/14

Below are the rise and set times for STS-64 for selected US cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass Set= time and azimuth when the Shuttle descends below the horizon Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

## Albuquerque NM

```
Date
         Rise
                Αz
                     Maximum Az El
                                       Set
                                              Az
                                                  Orb Rise MET
14Sep94 05:54:29 351 05:57:28 37 5
                                     06:00:10 79
                                                  70 04:07:31:34
14Sep94 07:26:41 317
                     07:30:35 233 61
                                     07:34:28 147
                                                   71 04:09:03:46
14Sep94 21:58:31 188
                    22:02:07 126 15
                                     22:06:00 58
                                                   81 04:23:35:36
14Sep94 23:31:20 254
                     23:34:55 316 14
                                     23:38:30
                                               20
                                                   82 05:01:08:25
15Sep94 05:49:26 346
                     05:52:43 42 9
                                     05:56:01 94
                                                   86 05:07:26:31
15Sep94 07:21:39 309
                     07:25:32 236 28
                                     07:29:25 160
                                                   87 05:08:58:44
15Sep94 21:53:11 201 21:57:04 124 29
                                     22:00:57 50
                                                   97 05:23:30:16
```

```
15Sep94 23:26:53 269 23:29:53 318 8 23:33:10 13 98 06:01:03:58 16Sep94 05:44:05 340 05:47:41 46 14 05:51:16 106 102 06:07:21:10 16Sep94 07:16:36 301 07:20:11 241 15 07:23:47 174 103 06:08:53:41 16Sep94 21:47:50 214 21:51:43 131 63 21:55:37 43 113 06:23:24:55 16Sep94 23:22:08 282 23:24:50 323 5 23:27:28 5 114 07:00:59:13
```

#### Honolulu HI

Satellite STS-64 Element Set 14

```
Date
          Rise
                Αz
                     Maximum Az
                                  El
                                        Set
                                               Az
                                                   Orb Rise MET
14Sep94 00:59:13 183
                     01:02:48 120 14
                                      01:06:23 57
                                                    67 04:02:36:18
14Sep94 02:32:37 261
                     02:35:37 310
                                  7
                                      02:38:36 358
                                                    68 04:04:09:42
14Sep94 10:28:49
                     10:31:48 50 6
                                      10:34:47 96
                                                    73 04:12:05:54
                  4
14Sep94 12:01:01 306
                     12:04:37 240 18
                                      12:08:12 173
                                                    74 04:13:38:06
15Sep94 00:53:52 198
                     00:57:45 125 30
                                      01:01:39 45
                                                    83 05:02:30:57
15Sep94 10:23:28 353
                     10:26:45 48 12
                                      10:30:21 112
                                                    89 05:12:00:33
15Sep94 11:56:16 294
                     11:59:34 240 9
                                      12:02:33 190
                                                    90 05:13:33:21
16Sep94 00:48:49 211
                     00:52:43 99 80
                                      00:56:36 34
                                                    99 06:02:25:54
16Sep94 10:18:01 343
                     10:21:37
                               48 22
                                      10:25:30 126 105 06:11:55:06
```

## Los Angeles CA

Satellite STS-64 Element Set 14

```
Az Orb Rise MET
         Rise
                     Maximum Az El
  Date
                Αz
                                        Set
14Sep94 01:08:29 281
                     01:11:10 324 5
                                      01:13:52
                                                 5 67 04:02:45:34
                                      07:32:52 111
14Sep94 07:25:23 338
                     07:28:59 39 16
                                                   71 04:09:02:28
                     09:01:47 239 12
                                      09:05:22 178
14Sep94 08:58:12 298
                                                   72 04:10:35:17
14Sep94 23:28:56 224
                     23:33:08 322 61
                                      23:37:01 36
                                                   82 05:01:06:01
15Sep94 07:20:15 331
                     07:24:08 44 28
                                      07:28:02 123
                                                   87 05:08:57:20
15Sep94 08:53:57 284
                     08:56:39 241 6
                                      08:59:38 194
                                                   88 05:10:31:02
15Sep94 21:52:47 163
                     21:55:29 120
                                      21:58:28 74
                                  6
                                                   97 05:23:29:52
15Sep94 23:24:06 236
                     23:27:59 313 29
                                      23:31:53 29
                                                   98 06:01:01:11
16Sep94 07:15:07 324
                     07:19:00 40 58
                                      07:23:11 136 103 06:08:52:12
16Sep94 21:46:45 179
                     21:50:03 124 11
                                      21:53:38 63 113 06:23:23:50
16Sep94 23:18:58 248 23:22:51 318 17
                                      23:26:34 23 114 07:00:56:03
```

## Seattle WA

Satellite STS-64 Element Set 14

Date Rise Az Maximum Az El Set Az Orb Rise MET 14Sep94 01:08:29 228 01:12:40 131 77 01:16:51 54 67 04:02:45:34 14Sep94 02:42:11 276 02:45:47 340 15 02:49:22 44 68 04:04:19:16

```
14Sep94 04:16:12 307 04:19:29
                               1 9 04:22:46 55
                                                  69 04:05:53:17
14Sep94 05:49:18 315 05:53:11 24 16
                                     05:56:47 87
                                                  70 04:07:26:23
14Sep94 07:22:07 305 07:26:18 204 61
                                     07:30:11 135
                                                  71 04:08:59:12
14Sep94 23:32:08 179 23:35:08 130 9
                                     23:38:25 75
                                                  82 05:01:09:13
15Sep94 01:03:45 238 01:07:38 310 61 01:11:49 51
                                                  83 05:02:40:50
15Sep94 02:37:27 283
                    02:41:02 346 12
                                     02:44:38 45
                                                  84 05:04:14:32
15Sep94 04:11:27 311
                    04:14:45
                               6 9
                                     04:18:02 59
                                                  85 05:05:48:32
15Sep94 05:44:16 314 05:48:09 21 20
                                     05:52:02 96
                                                  86 05:07:21:21
15Sep94 07:17:04 302 07:21:16 219 35
                                     07:25:09 146
                                                  87 05:08:54:09
15Sep94 23:26:30 192 23:30:05 128 14
                                     23:33:41 67
                                                  98 06:01:03:35
16Sep94 00:58:43 248 01:02:36 324 38
                                     01:06:47 49
                                                  99 06:02:35:48
16Sep94 02:32:25 289
                    02:36:00 348 11
                                     02:39:36 47 100 06:04:09:30
16Sep94 04:06:25 313 04:09:43
                               8 10
                                     04:13:00 64 101 06:05:43:30
16Sep94 05:39:14 313
                    05:43:07 24 27
                                     05:47:00 104 102 06:07:16:19
16Sep94 07:12:02 298 07:15:56 229 22 07:19:49 156 103 06:08:49:07
16Sep94 23:20:46 204 23:24:39 134 22 23:28:11 64 114 07:00:57:51
```

Compiled by Will Marchant, KC6ROL Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group Send comments to kc6rol@amsat.org /EX

SB SAREX @ AMSAT \$STS-64.013 STS-64 World R/S Times 09/14

Below are the rise and set times for STS-64 for selected worldwide cities over the next three days. This data was generated to help hams without orbit programs to participate in the SAREX activities. Please note that all times are in UTC.

Rise= time (HH:MM:SS) the Shuttle Orbiter appears at the horizon Az= Azimuth (true) where the Orbiter will rise.

Maximum= time, azimuth (Az), and elevation (El) of the highest part of the pass Set= time and azimuth when the Shuttle descends below the horizon Orb= the number of this orbit

Rise MET= The Mission Elapsed Time at the rise. Format is DD:HH:MM:SS

### London UK

```
Maximum Az El
                                             Az Orb Rise MET
 Date
         Rise
                Αz
                                       Set
14Sep94 00:00:00 186 00:00:00 186 7
                                     00:01:48 166 66 04:01:37:05
14Sep94 16:05:08 194 16:08:44 132 13
                                     16:12:19 73
                                                  77 04:17:42:13
14Sep94 17:37:03 243 17:41:14 334 72
                                     17:45:25 60
                                                  78 04:19:14:08
14Sep94 19:10:27 280 19:14:21 350 22
                                     19:18:14 64
                                                  79 04:20:47:32
14Sep94 20:43:52 299 20:47:45 14 24 20:51:38 86
                                                  80 04:22:20:57
```

```
14Sep94 22:16:40 299 22:20:51 184 73 22:24:45 125
                                                 81 04:23:53:45
14Sep94 23:50:05 280
                    23:53:04 232 8
                                    23:56:21 179
                                                 82 05:01:27:10
15Sep94 15:59:42 204 16:03:35 135 18
                                    16:07:11 70
                                                 93 05:17:36:47
15Sep94 17:32:13 251 17:36:06 324 49
                                    17:40:17 59 94 05:19:09:18
15Sep94 19:05:37 285 19:09:30 359 20
                                    19:13:24
                                             67
                                                 95 05:20:42:42
15Sep94 20:38:44 300 20:42:37 10 28
                                    20:46:48 93
                                                 96 05:22:15:49
15Sep94 22:11:32 298
                    22:15:43 210 47
                                    22:19:36 134
                                                 97 05:23:48:37
15Sep94 23:45:14 274
                    23:47:56 233 5
                                    23:50:37 192 98 06:01:22:19
                                    16:02:09 66 109 06:17:31:27
16Sep94 15:54:22 214 15:58:15 140 27
16Sep94 17:27:11 259 17:31:04 342 37
                                    16Sep94 19:00:35 290 19:04:10 355 20
                                    19:08:04 69 111 06:20:37:40
16Sep94 20:33:41 301 20:37:35 22 34
                                    20:41:28 99 112 06:22:10:46
16Sep94 22:06:30 295 22:10:23 217 30
                                    22:14:13 143 113 06:23:43:35
```

#### Paris France

# Satellite STS-64 Element Set 14

Date	Rise	Az	Maximum	Az	El	Set	Az	0rb	Rise MET
14Sep94	00:00:00	200	00:00:00	200	12	00:02:41	165	66	04:01:37:05
14Sep94	16:04:32	207	16:08:26	137	23	16:12:19	64	77	04:17:41:37
14Sep94	17:37:21	256	17:41:14	332	30	17:45:07	50	78	04:19:14:26
14Sep94	19:11:03	292	19:14:39	353	12	19:18:14	54	79	04:20:48:08
14Sep94	20:44:28	309	20:48:21	17	15	20:51:56	80	80	04:22:21:33
14Sep94	22:17:16	306	22:21:27	30	71	22:25:39	122	81	04:23:54:21
14Sep94	23:50:41	285	23:53:58	231	9	23:57:15	178	82	05:01:27:46
15Sep94	15:59:30	216	16:03:24	136	36	16:07:17	60	93	05:17:36:35
15Sep94	17:32:19	264	17:36:12	334	23	17:40:05	50	94	05:19:09:24
15Sep94	19:06:19	298	19:09:54	2	12	19:13:12	57	95	05:20:43:24
15Sep94	20:39:26	310	20:43:19	18	18	20:47:12	87	96	05:22:16:31
15Sep94	22:12:14	304	22:16:25	208	69	22:20:19	132	97	05:23:49:19
15Sep94	23:45:56	277	23:48:38	236	5	23:51:19	193	98	06:01:23:01
16Sep94	15:54:10	226	15:58:04	152	61	16:02:15	57	109	06:17:31:15
16Sep94	17:27:17	271	17:31:10	341	18	17:35:03	50	110	06:19:04:22
16Sep94	19:01:17	303	19:04:34	359	12	19:08:10	61	111	06:20:38:22
16Sep94	20:34:24	311	20:38:17	27	22	20:42:10	95	112	06:22:11:29
16Sep94	22:07:12	300	22:11:05	222	40	22:15:10	141	113	06:23:44:17

# Sydney Australia

```
Date Rise Az Maximum Az El Set Az Orb Rise MET 14Sep94 02:12:35 218 02:16:46 133 73 02:20:39 41 67 04:03:49:40 14Sep94 16:44:31 356 16:47:49 54 14 16:51:42 121 77 04:18:21:36 14Sep94 18:17:02 288 18:20:37 226 14 18:24:30 159 78 04:19:54:07
```

```
15Sep94 00:35:44 188 00:38:43 142 6 00:41:43 96 82 05:02:12:49 15Sep94 02:07:38 225 02:11:50 308 47 02:15:43 28 83 05:03:44:43 15Sep94 16:38:53 342 16:42:46 53 26 16:46:39 128 93 05:18:15:58 15Sep94 18:12:35 273 18:15:52 217 9 18:19:10 166 94 05:19:49:40 16Sep94 00:30:23 194 00:33:41 141 10 00:37:16 82 98 06:02:07:28 16Sep94 02:02:54 233 02:06:47 310 22 02:10:22 15 99 06:03:39:59 16Sep94 18:07:50 261 18:10:32 220 5 18:13:31 174 110 06:19:44:55
```

## Tokyo Japan

Satellite STS-64 Element Set 14

```
Date
         Rise
                Αz
                    Maximum Az El
                                             Az Orb Rise MET
                                       Set
14Sep94 05:32:33 172 05:35:50 118 8 05:38:49 70 70 04:07:09:38
14Sep94 07:04:27 242 07:08:21 319 24 07:12:14 29 71 04:08:41:32
14Sep94 13:22:40 349 13:25:39 36 6 13:28:39 83
                                                  75 04:14:59:45
14Sep94 14:54:52 315 14:58:46 233 52 15:02:39 149
                                                  76 04:16:31:57
15Sep94 05:27:00 187
                    05:30:36 124 15 05:34:11 60
                                                  86 05:07:04:05
15Sep94 06:59:49 254 07:03:24 320 15 07:06:59 22
                                                  87 05:08:36:54
15Sep94 13:17:19 342 13:20:54 43 10 13:24:12 96
                                                  91 05:14:54:24
15Sep94 14:49:50 307 14:53:43 233 25 14:57:36 161
                                                  92 05:16:26:55
16Sep94 05:21:40 200 05:25:15 133 27
                                     05:29:26 51 102 06:06:58:45
16Sep94 06:55:04 267 06:58:21 322 9 07:01:39 16 103 06:08:32:09
16Sep94 13:11:58 337 13:15:34 39 16 13:19:27 109 107 06:14:49:03
16Sep94 14:44:47 299 14:48:22 237 14 14:51:58 175 108 06:16:21:52
```

Compiled by Will Marchant, KC6ROL Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group Send comments to kc6rol@amsat.org /EX

Date: 13 Sep 94 12:55:26 GMT From: news-mail-gateway@ucsd.edu

Subject: SAREX Elements 9/13 at 12:85 UTC

To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-64.014 SAREX Orbital Elements 9/13 at 12:45 UTC

Greenbelt, MD September 13, 1994 at 12:45 UTC

Gil Carman, WA5NOM reports that Element Set GSFC-14, provided by Ron Parise, WA4SIR, is within 1 second of a current (orbit 59) orbiter state vector.

This element set will be the official SAREX set for today.

STS-64

1 23251U 94059A 94256.35518513 0.00001905 10675-4 74542-5 0 140 2 23251 57.0075 208.5262 0009814 264.2494 95.7470 16.05008849 561

Satellite: STS-64 Catalog number: 23251

Epoch time: 94256.35518513 (13 SEP 94 08:31:27.99 UTC)

Element set: GSFC-014

Inclination: 57.0075 deg

RA of node: 208.5262 deg Space Shuttle Flight STS-64

Eccentricity: 0.0009814 Keplerian Elements

Arg of perigee: 264.2494 deg Mean anomaly: 95.7470 deg

Mean motion: 16.05008849 rev/day Semi-major Axis: 6638.7031 Km
Decay rate: 0.19E-04 rev/day\*2 Apogee Alt: 266.83 Km
Epoch rev: 56 Perigee Alt: 253.80 Km

NOTE - This element set is based on NORAD element set # 014.

The spacecraft has been propagated to the next ascending node, and the orbit number has been adjusted to bring it into agreement with the NASA numbering convention.

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group /EX

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Date: 12 Sep 1994 22:33:45 GMT

From: svc.portal.com!shell.portal.com!twise@uunet.uu.net

Subject: telnet to fcc? To: info-hams@ucsd.edu

I thought I remembered hearing something about the fcc having a telnet site...I can telnet to FCC.GOV, but can't get past the password.

At some point, it'd be nifty if they had an on-line, up to the minute way for us to check license statuses, as they entered them into their computers. But then this is .gov not .com. Oh well.

Travis KB8F0U

- -

Travis A. Wise
Assistant Manager, Photo Drive Up
Voice Mail/Pager: (408) 383-8570
Freshman, San Jose State University

\_\_\_\_\_

Date: Tue, 13 Sep 1994 01:06:23 GMT

From: psinntp!isc-newsserver!ultb!jdc3538@uunet.uu.net Subject: Using 9913 outdoors (was Re: Coax Fittings)

To: info-hams@ucsd.edu

In article <9409120400061382@pcappbbs.com> dale.piedfort@pcappbbs.com (Dale
Piedfort) writes:

>9913 is great coax if you are going to use it in straight runs, it will >not take undo flexing such as being used on a rotor though. And one of >the drawbacks of 9913 it is subject to contamination because of the air >dielectric. Better coax for your use would be Times Micro Wave LMR400

How about filling the last foot of the 9913 with polystyrene cement or the silicon RTV goop to keep water out? Also, for flexibility, can one splice a 5 or 10 foot length of RG-8 on the end of a 9913 run?

73...Jim N2VN0

>dale.piedfort@pcappbbs.com

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End of Info-Hams Digest V94 #1016 \*\*\*\*\*\*\*\*\*\*\*